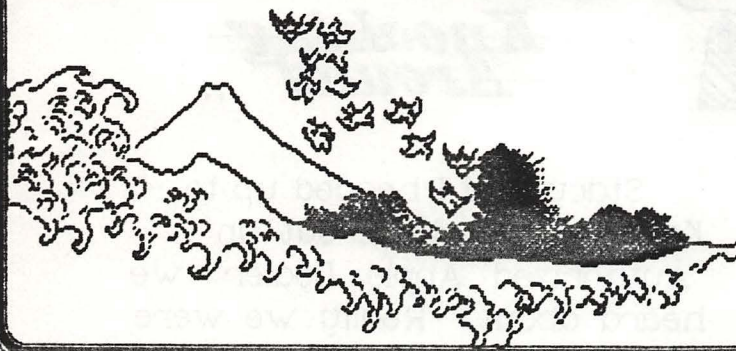


The Computer Rag

The Newsletter of the
Yokosuka Computer Club
news, gossip and innuendo
from the Western Pacific

Vol. 5 No.10 Oct 1988

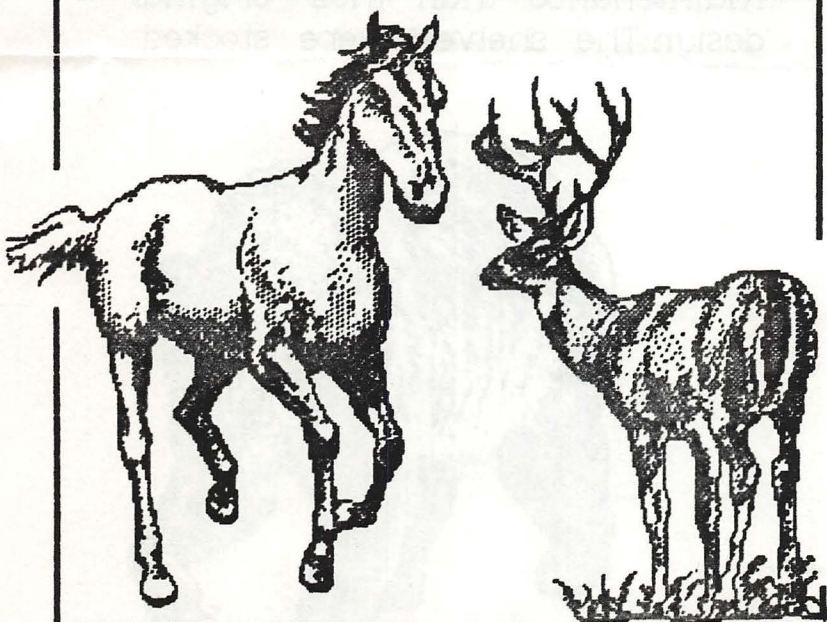
Come join the fun



October Meeting

The October meeting of the Yokosuka Computer Club will be held 21 October, 1988 at 6:15 p.m. in room 229 of the MWR building. The meeting will be held on the third Friday in October vice the second Friday because of scheduling conflict with the Navy Day Ball. We hope to see you all at the Navy Day Ball on the 14th and the YCC meeting on the 21st of October.

Come and Join the Fun



Editor から

Will this be our last newsletter or will it be the last newsletter I have the privilege of producing? Stacy and I will be setting our packout date today (21 Oct 88). Our Macs will be on their merry way to Sandy Eggo before we can put together another edition. I have had a lot of fun over the last two years off and on as Editor, Publisher or contributor. I have written about the spirit of the computer community in in Yokosuka and will miss you all and my adopted home. It is time for us to move on to something new. Look out Chargers, Charters's, and San Diego, here we come.

The last meeting of the club was small but we had fun making custom desktops and putting command key equivalents on our menus. This month we will be swapping some of those old icons for new ones. I for one am going to get rid of some of those ugly warning icons and replace them with some new ones from our Macintosh public domain library. More on that later.



Scott Strensland has sent us a neat article on graphic plotting algorithms. I hope to be able to try out his algorithm before the packers come and carry my keyboard away. I seems as if our friends in the Midway battle group are just a mail stop away. Thanks for taking the time, Scott. I include his address here for those of you who might want to drop him a line or two.

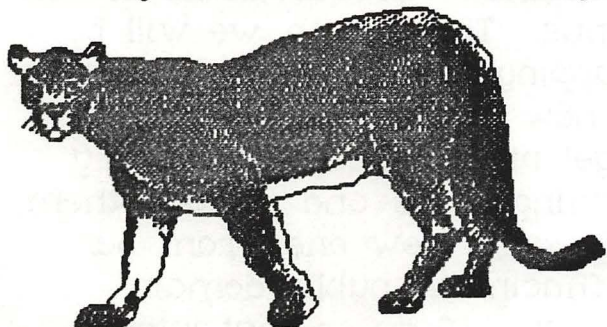
ET3 Scott Strensland
OE02 USS Midway CV-41
FPO SF, CA 96631-2710.

I am sure he will be glad to expound on this and other programming projects.

Art Murphy

YCC Membership Survey

At the last two meetings it was proposed that I include a survey sheet to allow members to update their demographic information. This info will be used to prepare a membership directory. Please take the time to complete the survey sheet and mail it or bring it with you to the next meeting.



Knocking Around ...

Stacy and I headed up to Kawasaki to check out an "Authorized Apple Dealer" we heard about. Really we were going to see Dirty Clint in "The Dead Pool" at the Cinecetta Grand E. The Apple logo can be seen from the KHK Kawasaki platform. It is open six days a week. Since it is closed on Mondays don't go on Columbus day.

This small shop is decked out with an impressive array of hardware and software. There was the obligatory Mac II running color and lots of windows. There is an SE and a plus. There were several brand name hard disks, scanners and laser printers.

The new Kensington trackball was on display. I hope the new one requires much less maintenance than their original design. The shelves were stocked



with a multitude of software packages. I was very interested to see BMUG (Berkeley Macintosh Users Group) shareware disks for sale.

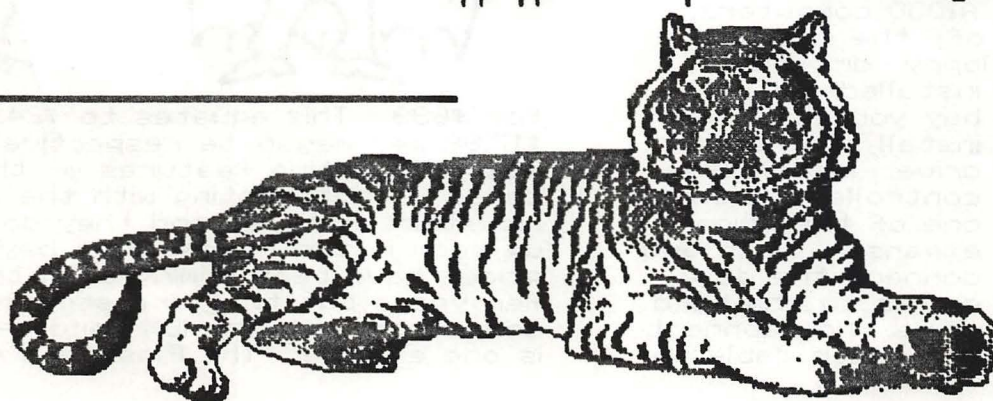
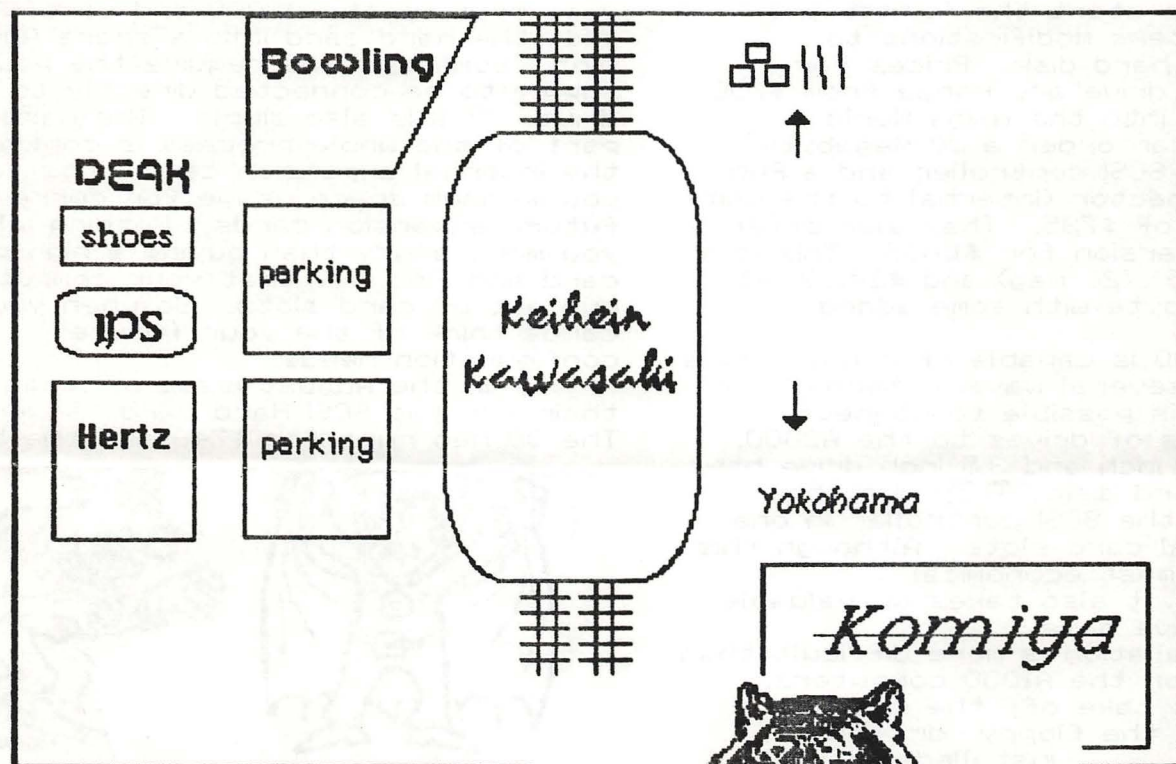
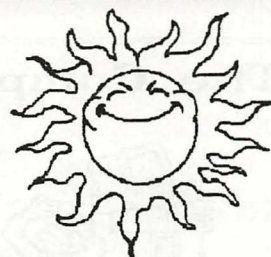
These disks are rated as having the best in public domain utilities and applications. The shop's name is IPS Computer Shop, it is on the fourth floor and the phone number is (03) 245-2604.

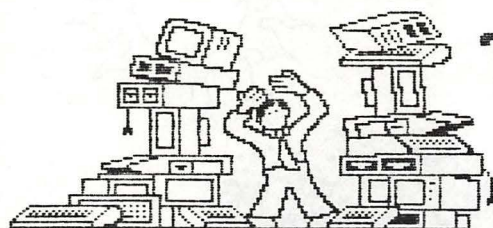
Check them out on your way to a movie at one of Cinecetta's five theaters or The Prime's 15 restaurants.

Art Murphy



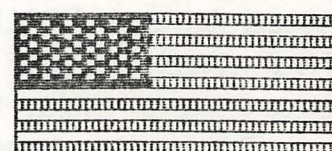
Don't Worry ...
Be Happy!





Technical Notes

By Rich Harrold



AMIGA AND HARD DRIVES

There are many ways to connect a hard disk to the current Amiga computer line. Lets look at the A500 and the A1000 first. The A500 has the extender bus on the left side while the A1000 has the extender bus on the right side. Installation is simple, just connect it to the side of the computer and, if applicable, plug in the power supply. Now you are set to start the format and operating systems modifications to recognize the hard disk. Prices for External hard drive are range from \$750 on up. A look into the Amiga World magazine you can order a 20 megabyte hard disk with SCSI controller and a RAM expansion connector (Internal to the unit) for the price of \$795. They also offer a 45 megabyte version for \$1,095. This is a cost of \$39.75 (20 meg) and \$24.33 (45 meg) per megabyte with some added features.

The A2000 is capable of connecting a hard drive in several ways, externally or internally. It is possible to connect different sizes of drives to the A2000. Their are 5.25 inch and 3.5 inch drive bays to install a hard disk. They must be connected to the SCSI controller in one of the internal card slots. Although this is one of the most economical configurations, it also takes up valuable floppy disk drive bays.

The installation is more difficult than on the A500 or the A1000 computers. First you must take off the computers cover and pull the floppy drive (if installed) from the bay you pick. Then install the hard drive. Install the controller card into one of the Amiga expansion slots and connect the data cables to the hard drive. Now connect the power cable to

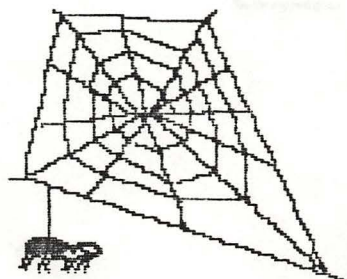
the hard drive and you are ready to rock and roll.

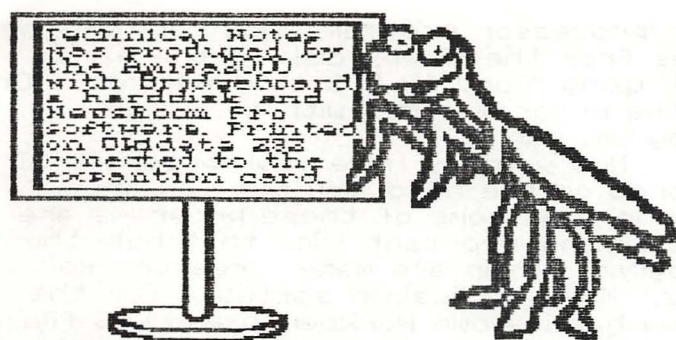
Since there are card slots in the A2000 we can install a hard disk and a half length controller connected together as a hard card. Usually these hard cards will take up one and a half card slots. They are easy to install. Just open up the A2000 and carefully slide the hard card into a spare Amiga slot. Some systems require the power supply to be connected directly to the drive. This is also simple. The hardest part of the whole process is configuring the internal expansion card slots to give you maximum space usage for current and future expansion cards. Nothing will make you more angry than buying a high priced card and find out that your computer has run out of card slots. So when you buy cards think of the your future configuration needs.

In the August issue of Amiga World their are two SCSI Hard cards advertised. The 30 meg runs for \$749 and the 50meg



for \$899. This equates to \$24.96 and \$17.98 per megabyte respectively. The most attractive features of these hard cards is autobooting with the 1.3 kickstart installed and they do not take up room in the floppy drive bays. The prices have been coming down the past few years but they are still not comparable with the IBM hard cards. Here is one example. The Flashcard 49





megabyte storage hard disk with its RLL controller card was purchased for \$540. This equates to \$11.02 per megabyte. There are other deals in the IBM hard disk market that will lower the per megabyte price to under \$10. From Japan it is a little hard to find such deals, but searching through Magazines you can find a fair price for the IBM hard drive system that will your needs.

These IBM compatible hard drives and hard cards can be installed in the IBM bus side of the A2000. The only requirement is having the Bridgeboard installed and operating. The hard disk can be shared between both operating systems. With this advantage you can buy a large capacity IBM hard drive at the price you can afford. The secret here is to partition the drive into two parts. The Bridgeboard can only access 33 megabytes at one time, but there is also the ability of formatting virtual drives beyond the 33 meg. You will need more storage area for the Amiga system than the Bridgeboard system. Amiga programs are inherently larger mostly because of the advanced graphics and other features the Amiga offers. It is not unusual to see a program use one megabyte, or more, of ram in the Amiga.

ORGANIZING A HARD DISK

Lets take a quick look at the MS-DOS system before we work with the Amiga. (This section will help the A2000 owners who have the Bridgeboard and an MS-DOS compatible hard drive.) Just for an example, we will imagine that we have a MS-DOS compatible computer with a 20 megabyte hard drive. We also have about a dozen programs that are in need of a home on the hard drive. *** WARNING: Formatting your drive with any files on the disk will cause you to lose those files. If you wish to re-format your hard disk without losing files, backup your hard disk before hand. ***

The first thing we do is format the disk using the "Format C: /s" command. The /s will make it a system disk and allow it to be bootable upon power up. Now if

we jam all those program disk into the root directory the computer will show a conglomeration of files. When we type "DIR" the list will seem like it goes on forever as all the files will be listed. This will make it very sloppy and hard to find the file you want to use. There is also the possibility of duplicating file names that writes over a file associated with other programs. To avoid dangerous situations like this, the root directory should only have four files and any amount of directories. The four files are IO.SYS (hidden, read only file), MS-DOS.SYS (hidden, read only file), COMMAND.COM, and AUTOEXEC.BAT. There should be a directory to store DOS files and a directory to store Batch files. We will name this directories "DOS" and "BATCH". As part of your AUTOEXEC.BAT file you should have the following line included: Path C:\DOS;C:\BATCH The PATH command lets you tell MS-DOS which directories to search for external commands - after it searches your working directory. This line will allow your system to execute any dos command or batch file in the DOS or BATCH directories from any directory or drive you may be in. C: is the C drive or hard disk. The \DOS informs MS-DOS to start searching for the external command in the DOS directory that is next to the root directory (\ is the symbol for the root directory). The semicolon (;) separates the path arguments, and the C:\BATCH informs MS-DOS to search the BATCH directory on drive C when previous searches failed to find the file asked for. The BATCH directory should have all your batch files to execute all you programs. Here is an example batch file for running Lotus 123.

```
CD \123
123
```

CD is the command for Changing Directory. Again here is the root directory symbol and then the 123 directory. The next line executes the Lotus 123 program. How to create a batch file? MS-DOS has a line editor (look for EDLIN in your MS-DOS manual), to help you write batch files.

Here is how my root directory looks

like.			
OKIDATA	<DIR>	7-30-88	6:18p
DRIVERS	<DIR>	7-30-88	6:37p
BATCH	<DIR>	1-01-80	12:14a
DISKUTIL	<DIR>	1-01-80	12:12a
PC-FULLB	<DIR>	1-01-80	12:08a
NRPRO	<DIR>	6-26-88	12:43p
WP	<DIR>	6-26-88	2:06p
MACHIV	<DIR>	6-26-88	2:20p
EASY	<DIR>	6-26-88	2:32p
WINDOWS	<DIR>	6-26-88	4:01p



RWRITER	<DIR>	1-01-80	2:43a
MULTIMAT	<DIR>	7-10-88	10:04a
WS2000	<DIR>	7-21-88	8:23p
HPG	<DIR>	7-21-88	8:23p
123	<DIR>	7-21-88	8:24p
DOS	<DIR>	7-21-88	9:47p

16 File(s) 9318400 bytes free

Notice that the root directory only has directories listed and no files. Although, not listed here, I do have four hidden files in the root directory. This is done to keep any computer beginners from altering or deleting these files. In other words, Out of Sight, Out of Mind. I have written batch files with the same name as the programs directories name. So when I type WP the the prompt >, the WordPerfect program is executed.



ORGANIZING THE AMIGA HARD DISK

After installing the hard disk on your Amiga, pay close attention to the instructions that come with either your controller card or your hard disk, on how to partition and format the disk. It is some what different than the floppy drives.

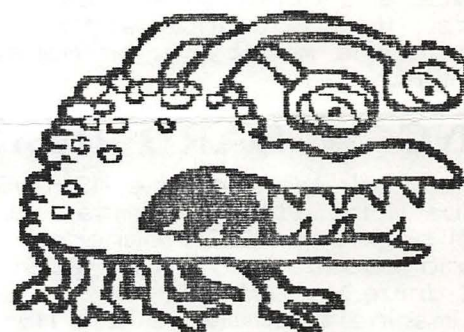
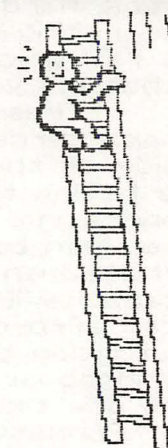
Once formatted, you are ready to store all those programs and data file on to that little bugger. As you start copying your program disk to the hard disk you find that many icon start showing up on you Workbench window. Their seems to be no organization to the whole scheme. The best thing you can do is start copying these programs into directories. This will help reduce the confusion and help keep some associated files intact. On the Workbench disk you will find a drawer called empty. This drawer is an empty directory just waiting to be copied to your hard drive and be filled with one of you programs or some data files. Sorry, only non-protected programs can be stored on the hard disk.

The best way to go about storing the important every day programs and files to hard disk is by using the CLI. First copy the empty drawer to the hard drive and rename it to some thing that describes it. Like "Words" for your best

wordprocessor program. Now copy all the files from the floppy disk to the hard disk using "Copy All DF1: to HD0:Words". Or if the program comes with an install program, run it.

Now you may have your programs all stored on the hard disk but you are finding that some of these programs are not finding important files that help the program. Their are many reasons for this. Most application software for the Amiga has its own Workbench and DOS files, but they are not being accessed by the operating system. Or the operating system is looking for these files in the floppy drives. Here is a cure. Copy your Workbench disk into a directory and name it "Workbench". Now edit your s/startup-sequence file to read the following:

```
Assign sys: HD0:Workbench
IF EXISTS sys:c
    Assign c: sys:c
EndIF
IF exists sys:s
    Assign s: sys:s
EndIF
IF EXISTS sys:t
    Assign t: sys:t
EndIF
IF EXISTS sys:l
    Assign l: sys:l
EndIF
IF EXISTS sys:libs
    Assign libs: sys:libs
EndIF
IF EXISTS sys:devs
    Assign devs: sys:devs
EndIF
IF EXISTS sys:fonts
    Assign fonts: sys:fonts
EndIF
```



You may have the idea by now, just assign all the devices to the Hard disk Workbench directory. Another example is on the Workbench 1.2 or 1.3 disk

under s/startup-sequence.hd. There will always will be those programs that will need a certain file in the sys: device. Another way to get things to work is by using the Assign in another way. For example:

Assign WP: HD0:words

This line in my s/startup-sequence assigns the WordPerfect program in the Words directory on my hard drive to the WP: device. When the program calls for other files located with in that device, it will find them. Some times you will have to be

more specific with your assignments and, sometimes the dictionaries will need to be assigned separately.

When you start working with Amiga DOS some things can be confusing. The best advise is to keep trying to get things to run by reading the Amiga DOS manual and experimenting.

REMEMBER TO BACK UP ALL YOUR FILES BEFORE EXPERIMENTING. I have lost many data files during the weeks it took me to organize my hard disk.

On the Workbenches Project pull down window there is a program called Info. This program is can be used to give you information about a particular program or file. To get information about tools and projects, select the icon for the tool or project, (by clicking once), then choose Info from the workbench menu. The information includes the type (project, tool, drawer, or disk) of the object you've selected, as well as various measures of its size. You can also change the status of the object by selecting one of the gadgets below the word STATUS. An important part of the Info window is the Default Tool entry. Here is where you can change where the program is hiding. An example is a wordprocessor file stored with its associated icon generated from the program called Scribble! This icon will have the default tool listed as:

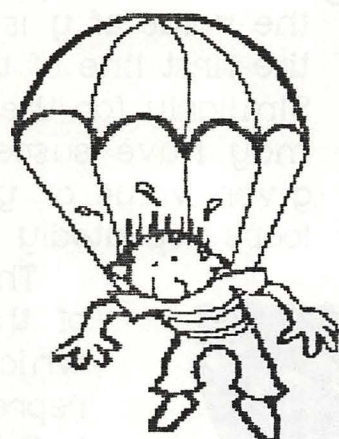
Default Tool Sys:Scribble!

As before the program Scribble! would be in the directory called Words on your hard disk. When you click on the file icon it will search for the Scribble! program in the Sys: device. The operating system will never find the program and the following error will appear on the message line.

Error while opening Sys:scribble: 205
Error 205 is Object not found. It is easy to fix this. Change the Default Tool on each icon info screen to some thing similar to the following.

Default Tool HDD:Words/Scribble!

Now when you click on the icon, the program will run and list your wordprocessor file as if running on only floppy disks. Any file that has a default tool can be directed to the any directory of your liking. In this way you can have any file directed to



any program or utility tool in a directory.

When you get to the point of no return, give me a call and we can set up a time to smooth out the rough parts. Since I have the A2000 I am familiar with both MS-DOS and AmigaDOS operating systems. Remember, stupid questions do not exist in my world.

My work number is 234-7768, leave a name and number where I can reach you. (Toll free from any military base in Japan, CONUS residence will need to send a loan application and credit references before calling.)

Rich

This Rent For Space

I was a 98 pound weakling both mentally and physically till I bought my first educational product from SPRINGBOARD. Now I'm a Hunk!



SPRINGBOARD
The guaranteed educational software



Programmer's Corner



Programming computers can be fun. Here are some ideas to entice you to explore programming. Together we will use each idea presented to generate surprisingly intricate graphic images with only a few lines of code.

At the heart of the first program is this algorithm:

```
alpha = y - sin(x)
beta  = a - x
```

To develop a working program from this we imagine a flat surface where up and down is represented by **y**, and left and right by **x**. As we change the value of **x** and **y** we generate values of **alpha** and **beta**. Here is how we do that:

```
for y = 0 to 20 step 0.1
  for x = 0 to 20 step 0.1
    ....
    ....
    ....
  next x
next y
```

What we have here are two loops, one inside the other. The first and last line of the above describes how the **y** loop adds 0.1 to the value of **y** each time the loop repeats. The loop will repeat until

the value of **y** is 20 as stated in the first line of the **y** loop. Similarly for the **x** loop. As you may have suspected, for each given value of **y**, the variable **x** loops repeatedly from 0 to 20.

This is the heart of the program which is represented by the bullets (••••). Since the values of **x** and **y** are known inside the loops we can find the values of **alpha** and **beta**. Just replace the bullets (••••) with:

```
alpha = y - sin(x)
beta  = a - x
alpha = x
beta  = y
point = (alpha , beta)
```

<== this is the point line
The point line may need to be adapted to your programming environment. It actually draws a point on your screen. As of yet the variable **a** does not have a value. The variable **a** determines the shape of the resulting image. At first use **a = 0.07** and then after your program is up and running, feel free to experiment with **a's** value. place the instruction:

```
a = 0.07
```

at the beginning of your program. (better yet make it an interactive variable *ed*.) Our program will draw an interesting

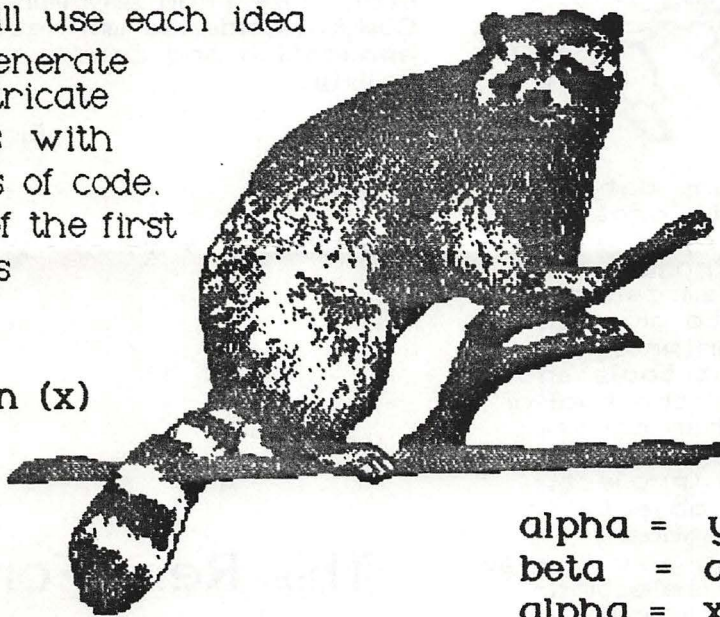




image using these few lines of code. If we use a slightly complicated algorithm a more startling image can be created. Try this one out:

```
alpha = y -
sign(x)*sqrt(abs(b*x-c))
beta  = a - x
```

The function **abs** returns the absolute value of its argument. Given the value of $(b*x-c)$ is less than zero, **abs** makes it positive. The function **sqrt** returns the square root of its argument. The function **sign** returns the sign of its argument (+/-) depending on **x** in this equation.

As before, we will need to imagine a flat surface where we can vary the value of **x** and **y**. Use the same loops as in the first example. You are free to choose the values of the variables **a**, **b**, and **c**. Try **a=0.4**, **b=1**, and **c=0**.

Have fun experimenting with these models. Both of these ideas came from the Computer Recreation column in the magazine Scientific American. I have working programs that run on the Macintosh and will be glad to give a demo when the Midway returns. Drop me a line if you have questions or if you want to discuss this further.

Scott Strensland

The animal clip art is from the
Best of UPTIME
disk sent to me by MacWorld.

Customize Your Desktop

In the last two newsletters we explored ways to make our operating environment reflect our selves. We put in command keys and made our desktop pattern become one of our favorite drawings. In the Mac SIG meetings after the main YCC meeting I have demonstrated these techniques, passed out copies of the shareware I used to manipulate the system files, and listened to your feedback.

This month I want to share with you a simple way to make those drab finder icons a little more a reflection of the most important part of an operating system, YOU.

Icons are 32 x 32 pixel bitmap graphics with a resource fork. The icons I want to deal with are the generic Finder Icons such as the trash can, file folders and volume icons (disks). These icons are really two icons. The icon and its mask. A mask is what your icon changes into when it is selected. The icon and its mask are a 256 byte resource that can be found in an icon list.

In ResEdit an icon list is represented as ICN#. An icon is represented by ICON and is a 128 byte resource used by the system and applications, usually in dialog boxes and they can be inserted into menus. This month I want only to deal with icon list (ICN#).

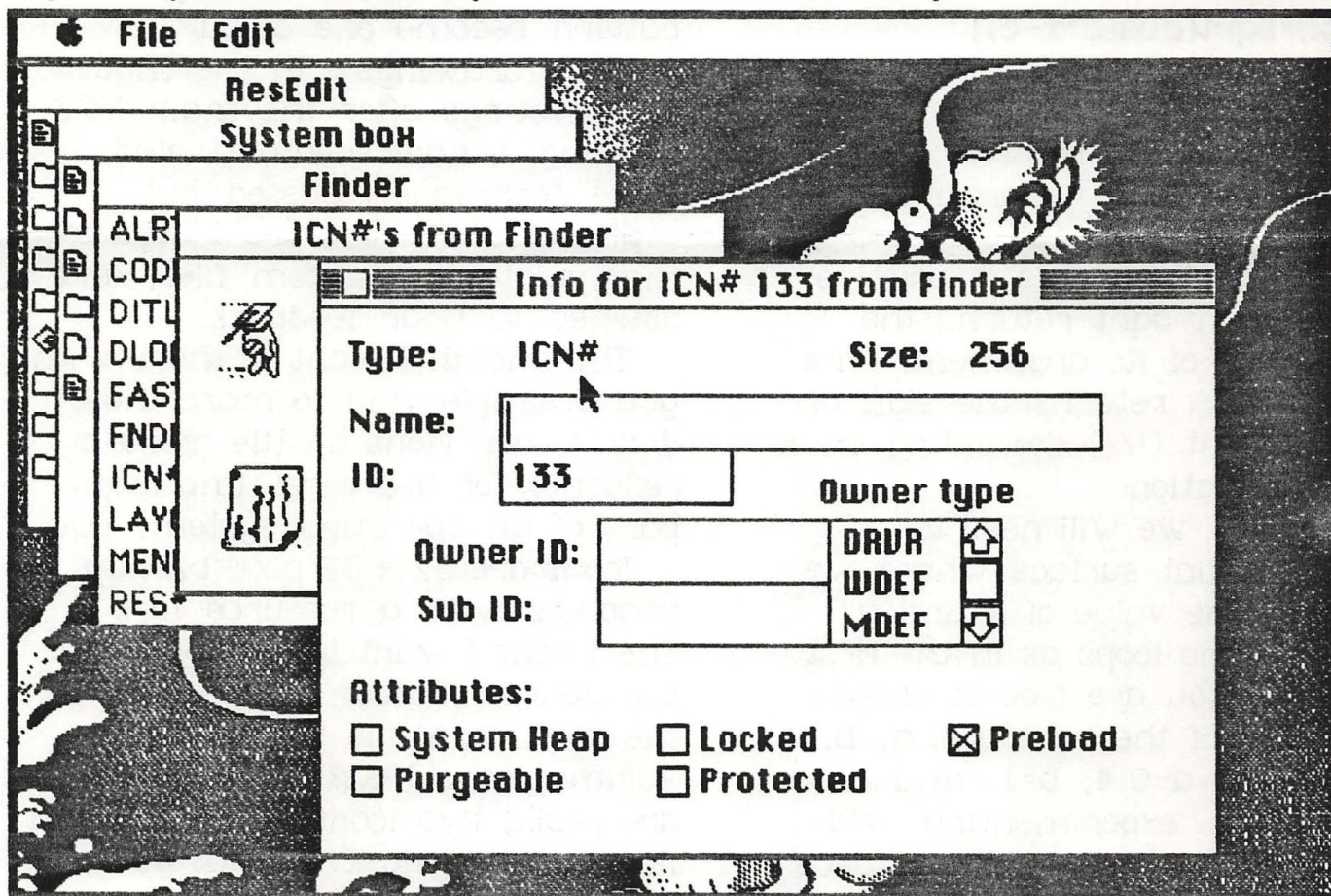
The YCC Macintosh SIG public domain library has disks of icons and utilities for creating your own icons. Icons are a lot like

commercials. They both have to tell the whole story with a few bits of information.

Fire up ResEdit and let's go to work on a BACKUP COPY of your favorite system disk. Double click on your system file until you



generic Icon. Open the custom Icon and change its ID number and attributes to match the ones of the generic Icon. Close the Info window. The change to the Custom icon has not been recorded yet. You must close its



come to the Finder. Double click the Finder and scroll down to ICN#. Open ICN# and you will be presented with Icons from the Finder. Select an Icon and Get Info from the File menu or just use Control I. Your screen should look like the one in my example.

Note the ID number and which attributes are checked. Record this info on paper or in your note pad DA. Click closed the Info window. Put your disk with the Icon you want to replace the

file and answer yes to record the change. Then open it back up.

Select the Custom Icon and copy it by Control C or from copy in the Edit menu. Click to make the generic Icon window the active window. Paste your Custom Icon into the Generic window by Control V or from the Edit menu paste function.

The generic Icon will disappear and the Custom Icon will take its place. The Icons in the window may rearrange their order. This is natural. The change of Icons



has not been recorded yet.
You must close down and
answer yes the record the
change.

Remember, only use ResEdit on
a BACKUP COPY and test drive
your creation to see if it is com-
patible with your applications.
Hack on ...

Art Murphy

Very Important!

Your name will appear in the
YCC Membership Catalog for
publication unless you sign and
return this form to the Club
secretary.

Sign: _____
I do not wish my name published.
Print name: _____

Membership Survey

First Name: _____

Family Name: _____

Home Phone: _____

Work Phone: _____

Mailing Address: _____

Work Computer: _____

Home computer: _____

Advocation: _____

Hard drive: _____

Scanner: _____

Video Input: _____

Plotter: _____

Printers: _____



IDS

Yokosuka Computer Club

DMS Box 187

ATTN: Club Secretary

FPO Seattle, WA 98162

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Point of Contact Numbers

President

Austin Williams
234-4926

Vice-President Editor

Art Murphy
234-7380

Secretary

Dave Lydon
234-4470

Treasurer Macintosh

Scott Strensland
6651 x7507

Commodore

Austin Williams
234-4925

MS-DOS

Dave Lydon
234-4470

BIOS

Basic Input/Output System. The Main ROM chip which awaits loading of software bootstrap routines from disk(MS-DOS) at power up to prepare itself to run applications software. Genuine IBM machines have the kernal of the BASIC Interpreter in ROM, and can be booted to BASIC without loading a disk. However to run the interpreter, the other half, the program BASICA, must be loaded from disk.

Yokosuka Computer Club
DMS Box 187
FPO Seattle, Wa 98762
Come join the fun



Lawrence Charters

6787 Deerwood Ct.

San Diego, CA 92120